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# **China - Peoples Republic of**

Post: Beijing

# **Maximum Levels of Mycotoxins in Foods**

Report Categories:

FAIRS Subject Report **Approved By:** 

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# **Report Highlights:**

On May 13, China's Ministry of Health published on its web site National Food Safety Standard on Maximum Levels of Mycotoxins in Foods. To be implemented on October 20, 2011, the standard prescribes the maximum levels of Aflatoxin B1, Aflatoxins M1, Deoxynivalenol, Patulin, Ochratoxin A, and Zearalenone in foods. A draft version of the standard was notified to the WTO on August 12, 2010 as G/SPS/N/CHN/311. This report contains an INFORMAL translation of the document.

#### **General Information:**

**BEGIN TRANSLATION** 

# National Food Safety Standard Maximum Levels of Mycotoxins in Foods

GB2761-2011

Issued on April 20, 2011
Implemented on October 20, 2011
Issued by the Ministry of Health

# **Preface**

This Standard replaces GB 2761-2005-- Maximum Levels of Mycotoxins in Foods and the maximum levels of Mycotoxins in GB 2715-2005-- Hygienic Standard for Grains.

Compared with GB 2761-2005, major modification in this Standard is as follows:

C	compared with GB 2761-2005, major modification in this Standard is as follows.
	-Modification has been made to the standard name;
	-Add to the definition of edible parts;
	-Add to the application principles;
	-Add to the indicators of Ochratoxin A and zearalenone;
	-Modification has been made to the indicators of maximum levels of Aflatoxin B1, Aflatoxin M1,
Deoxy	nivalenol and Patulin;
	–Modification has been made to the inspection methods for Aflatoxin $B_1$ , Aflatoxin $M_1$ and Deoxynivalenol .
	-Add to appendix A.

## **National Food Safety Standard**

## **Maximum Levels of Mycotoxins in Foods**

#### 1 Scope

This Standard stipulates the indicators of maximum levels of Aflatoxin B1, Aflatoxin M1, Deoxynivalenol, Patulin, Ochratoxin A and zearalenone in foods.

#### 2 Terms and Definitions

#### 2.1 Mycotoxins

Mycotoxins refer to a secondary venomous fungal metabolite produced by aflatoxigenic fungi in the course of certain fungal growth and reproduction.

#### 2.3 Edible parts

Edible parts obtained after the inedible parts dispelled by mechanical means (for example: the grains are milled, the fruit is peeled and the nuts are shelled, bones are removed from meat or fish etc).

- Note 1: Non- mechanical means shall not be used for dispelling of inedible parts (such as refined progress for unrefined vegetable oil).
- Note 2: While using the same food raw materials to produce different products, the volume of the edible parts shall differ from manufacturing techniques to manufacturing techniques. When wheat is made into cereal or whole wheat noodle, the edible part is 100%; when made into flour, it shall be discounted according to flour yield.

#### 2.3 Maximum levels

The maximum density of mcotoxins allowed in edible parts of the food raw materials and/or finished food products.

- 3 Application principles
- 3.1 No matter whether formulate the maximum levels of mcotoxins or not, the manufacturer and processor shall take control measures to make the density of mcotoxins in food reaches the minimum levels.
- 3.2 This standard lists motoxins which may be risk to public health, and food with maximum levels are those have great influence on the food exposed to customers.
- 3.3 Food type (name) specification (appendix A) is used to identify the application scope of maximum levels of mcotoxins, and it is only available to this standard.

When maximum levels of some mcotoxins are applied to some food type (name), then they shall be applied to all types of food within this food type (name), unless otherwise specifically provided.

- 3.4 The maximum levels of mcotoxins in food are calculated according to usually edible parts, unless otherwise specifically provided.
- 3.5 The maximum levels of mcotoxins in food shall be discounted according to dehydration rate or concentrating rate of relevant food raw materials. Dehydration rate or concentrating rate can be confirmed by analysis to food, data provided by manufacturers and other available information and so on.

#### 4 Requirements of Indicators

#### 4.1 Aflatoxin B<sub>1</sub>

See Table 1 for indicators of maximum levels of Aflatoxin B<sub>1</sub> in foods.

Table 1. Indicators of Maximum Levels of Aflatoxin B<sub>1</sub> in Foods

Food type/Name	Maximum level (MLs) / (μg /kg)
Cereals and theirs products	
Maize, maize flour (pulp, pieces) and maize products	20

Paddy, brown rice and rice	10
Wheat, barley, other grain	5.0
wheat noodle, oatmeal and other shelled grains	5.0
Maize and its products	
Fermented bean products	5.0
Nuts and seeds	
Peanut and its products	20
Other cooked nuts and seeds	5.0
Fats and its products	
Vegetable fats (Peanut oil, corn oil)	10 20
Condiments	
Peanut oil, corn oil ( grains are the main raw materials)	5.0
Special food for diet Elder infant and babies formulas <sup>b</sup> Infant formulas for special medical purpose Supplementary foods for infant and babies	<ul><li>0.5 (by powdery product)</li><li>0.5 (by powdery product)</li><li>0.5 (by powdery product)</li><li>0.5</li></ul>
<sup>a</sup> Grains are calculated according to brown rice.	10.0
The products mainly based on soybean and soybean p	rotein products

<sup>4.1.2</sup> Method of inspection: Infant formulas and supplementary foods for infant and babies shall be measured by the stipulations of GB 5009.24, while other food shall be measured by the stipulations of GB/T 18979.

#### 4.2 Aflatoxin M<sub>1</sub>

See Table 2 for indicators of maximum levels of Aflatoxin M1 in foods.

Table 2. Indicators of Maximum Levels of Aflatoxin M₁ in Foods

Food type/Name	Maximum level (MLs) / (µg /kg)	
	Method of inspection	
Milk and milk products <sup>a</sup>	0.5	
Special food for diet  Milk and milk products <sup>a</sup> Elder infant and babies formulas <sup>b</sup> Infant formulas for special medical purpose	<ul><li>0.5 (by powdery product)</li><li>0.5 (by powdery product)</li><li>0.5 (by powdery product)</li></ul>	
<sup>a</sup> Milk powder is converted by raw milk.		
<sup>b</sup> The products mainly based on milk and milk protein products		

<sup>4.2.2</sup> Method of inspection: Infant formulas and supplementary foods for infant and babies shall be measured by the stipulations of GB 5009.24, while milk and milk products shall be measured by the stipulations of GB 5413.3 7.

## 4.2.2 Method of inspection

#### 4.3 Deoxynivalenol

4.3.1 See Table 3 for indicators of maximum levels of Deoxynivalenol in foods.

Table 3. Indicators of Maximum Levels of Deoxynivalenol in Foods

Food type/Name	Maximum level (MLs) / (μg /kg)
Cereals and theirs products Maize, maize flour (pulp, piece) Barley, wheat, oatmeal, wheatmeal	1000 1000

#### 4.4 Patulin

See Table 4 for indicators of maximum levels of Patulin in foods.

Table 4. Indicators of Maximum Levels of Patulin in Foods

Food type/Name	Maximum level (MLs) / (μg /kg)	
Fruit and its products		
Fruit products (except haw	50	
roll)	50	
Beverages		
fruit and vegetable juice	50	
Wines	50	
<sup>a</sup> Only available to products based on apple and haw.		

4.4.2 检验方法:按 GB/T 5009.185 规定的方法测定。

4.4.2 Method of inspection: Be measured by the stipulations of GB/T 5009.185.

#### 4.5 Ochratoxin A

See Table 5 for indicators of maximum levels of Ochratoxin A in foods.

Table 5. Indicators of Maximum Levels of Ochratoxin A in Foods

Food type/Name	Maximum level(MLs)/(μg /kg)	
Cereals and theirs products		
Cereals <sup>a</sup>	5	
Processed products of grains	5.0 5.0	
milled		
Legumes and theirs products		
Legumes	5.0	
a Grains are calculated according to brown rice.		

4.5.2 Method of inspection: Be measured by the stipulations of GB/T 23502.

#### 4.6 Zearalenone

See Table 1 for indicators of maximum levels of Zearalenone in foods

**Table 6. Indicators of Maximum Levels of Zearalenone in Foods** 

Food type/Name	Maximum level (MLs) / (μg /kg)
Cereals and theirs products Wheat, flour	60
Maize, maize flour (pulp)	60

END TRANSLATION